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ABSTRACT

This study examined patterns of social interactions and play activities in Japanese day care settings. Fifty children between 6 and 36 months of age in five day care centers in Tokyo were observed over several prescribed time intervals. Variables measured during the observations included: (1) type of social interaction; (2) type of activity engaged in; (3) concentration, as determined by length of play bouts; and (4) complexity of activity. Data obtained from the observations were compared to similar data obtained in studies in the United States and the United Kingdom. Results from the observations showed that while developmental trends in social interaction and play activities were found, influences of Japanese caregivers in helping to promote a sense of group membership were also found. Few play bouts were cognitively complex. Results of the cross-cultural comparisons indicated that Japanese children engaged in more social exchanges than did children in a U.S. study, and that Japanese children showed attention spans as long as those measured in a study of British children 2 years older than the Japanese children. A reference list of 19 items is included. (BC)

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AN EXAMINATION OF SOCIAL INTERACTION AND PLAY ACTIVITIES OF INFANTS AND TODDLERS IN JAPANESE DAY CARE

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AN EXAMINATION OF SOCIAL INTERACTION AND PLAY ACTIVITIES OF INFANTS AND TODDLERS IN JAPANESE DAY CARE

Abstract

Patterns of social interaction and play activities in Japanese day care settings were examined together with the attention span of children and the complexity of the activity in which they were engaged. Comparisons were drawn with available Western data to help illumina e the extent to which the Japanese values of the importance of the group and interdependence, and persistence or concentration were influencing practices. While developmental trends were apparent in social interactions and play activities, influences of Japanese caregivers in helping to promote a sense of group membership were also found. Japanese children demonstrated attention spans at least as long as British children who were two or three years older. Given the few cognitively complex play bouts observed in the Japanese sample it appears that at least for children ages one to three caregivers do not emphasize this area.

AN EXAMINATION OF SOCIAL INTERACTION AND PLAY ACTIVITIES OF INFANTS AND TODDLERS IN JAPANESE DAY CARE

Japanese educational practices have recently been subjected to much scrutiny by Americans seeking to understand the high academic achievement of Japanese students (e.g., Stevenson, Azuma & Hakuta, Eds., 1986; U. S. Department of Education, 1987). This examination has even included the preschool years (e.g., Hendry, 1986; Lewis, 1984). Shigaki (1983) suggested that while Japanese and American day care settings share many commonalities, a crucial difference centers on differing cultural values being transmitted even from infancy. In American society independence and self-confidence or self-expression are commonly cited values (White, 1987). In contrast, key values of Japanese society are the importance of the group and interdependence, and persistence including its corollary concentration.

Harmonious human relationships fostered by such traits as sympathy and compassion, and a sense of the group and of community have long been characteristic of Japanese society (Caudill, 1973; Clark, 1978). On the Japanese preschool level, White (1987) indicated that "children who don't feel that group activities are 'more fun' than individual ones don't yet 'know the happiness of playing together'" (pp. 103-4). Pleasure in group play is fostered by Japanese caregivers through such practices as providing ample opportunities for engaging in identical activities including group synchronized rhythmic movement, through example or modeling, and by frequently exhorting the children to: "Nakayoku asobi masho."--"Let's

play harmoniously together." (Hendry, 1986; Shigaki, 1983; Shigaki, 1987).

Contributing to a Japanese child's achievement "is the mother's insistence that concentrated attention be devoted to any task at hand," according to Lanham (1966, p. 324). In fact explained White (1987), effort or persistence is valued over ability. More leisurely pacing of activities, thus allowing the child,to engage in the same activity longer, and regularly encouraging the children to: "ganbare"--"don't give up," are some of the ways Japanese caregivers encourage persistence (Hendry, 1986; Shigaki, 1983).

The temporal and physical structure of Japanese day care settings also contribute to the inculcation of societal values. The school year for day care as for the entire school system in Japan commences on the first of April. Children are grouped strictly by age with those not yet one at the beginning of the school year assigned to the zero's class; those who are one but not yet two, assigned to the one's class; and so forth. The class is promoted annually as a group rather than based on development, hence group membership is stable. Toys and materials are usually kept in closets until needed rather than the common convention in the West of maintaining various activity areas in the classroom. The Japanese children daily assemble materials, reassembling them again the next day in the multi-purpose space of the classroom. While a range of materials for fine motor to gross motor development are generally available, occasionally including such American products as Fisher-Price busy boxes and

Tupperware form balls, materials for children up to age three do not represent the same cognitive emphasis as in the United States. Little didactic teaching materials to develop pre-reading skills and number concepts are utilized. White (1987) has observed that Japanese mothers do not explicitly mention cognitive development as an important goal of preschool education. Since the description above is necessarily brief, the interested reader is referred to Hendry (1986) for a more extended account of Japanese day nurseries.

An initial empirical exploration of whether Japanese values are indeed being transmitted from infant and toddlerhood will be presented in this paper focusing on the research questions below.

1. What are the patterns of social interaction of children from 6 to 36 months in Japanese day care? Given the emphasis in Japanese society on harmonious group relationships, one would expect to find a greater proportion of exchanges among Japanese children and their caregivers than among comparable cohorts in the West.

2. What activities do young Japanese children engage in during play periods? A comparison of the play activities of young Japanese children with data from the West will help establish baseline information which should inform a subsequent cross-cultural examination of concentration and complex play.

3. What is the attention span of young Japanese children? If the values of persistence and concentration held by Japanese society are inculcated even from infancy, good attention spans exhibited by young Japanese children would be a logical corollary.

4. What is the proportion of complex play bouts engaged in by young Japanese children? With the current interest in the high academic achievement of Japanese students, an exploration of the extent of complex play as a potential precursor of such achievement may shed light on its origins.

Method

Subjects

Children were selected from five Japanese day care centers in the metropolitan Tokyo area, serving middle-class families. Classes at the centers for those under age one ranged in size from 10 to 12, for one's 9 to 14, and for two's 13 to 18. Caregiver to child ratios were approximately from 1:2 to 1:3 for children under one, from 1:3 to 1:4 for one year olds, and 1:4 for two year olds. After consulting with the caregivers, four children were not included in the sample, two who were Chinese and two who were developmentally delayed. A total of 50 children were observed, 10 each from the age spans 6-12 months, 12-18 months, 18-24 months, 24-30 months and 30-36 months. Half of the subjects in each age group were boys and half were girls.

Procedures

An adaptation of the "target child" methodology described by Sylva, Roy and Painter (1980) was utilized for the study. The methodology consisted of following one child's activities during a prescribed time period. A continuous running account of both an activity record as well as a language record was made with 30 second intervals noted. The methodology permitted a relatively unobtrusive

observer to chart a child's activities while keeping the effect of the observer to a minimum. Observations were made during play periods rather than scheduled time devoted to routines such as feeding. Given the ages of the children and depending upon the activity, however, routines such as toileting or hand washing occasionally were seen during the formal observations.

The children observed by Sylva et al. (1980) ranged in age from three to five years which permitted observations in 20-minute blocks. Given the much younger ages of the children in the present study, results of a pilot indicated that observing in 10-minute blocks was reasonable. Observations commenced at the beginning of a play bout. (Play bouts are defined below in the section describing the coding of concentration.) If a child was still engaged in a play bout at the end of the 10-minute period, observation continued until its completion. The core of the data was comprised of the formal 10-minute observations, however. Each child was observed twice usually on successive days, resulting in a minimum of 20 minutes of observations. Observations were made after the children had adjusted to the day care environment, at least one month from entrance. Most subjects had been in daycare for at least a year. Seven of the 100 observations were made outdoors distributed across three age groups. An examination of these protocols indicated that they resembled indoor observations, hence they were included in the data pool. Roper and Hinde (1978) also found good consistency between indoor and outdoor behaviors particularly in social interactions.

Coding of Protocols

Social codes. For patterns of social interaction, data were coded utilizing five mutually exclusive categories as follows: Solitary (absorbed in play by self), Watches (watches people or events), Parallel Play (nature of play similar to those nearby, but with no exchanges), Interaction (brief exchange usually containing only a single elicitation or lasting 30 seconds or less), and Interchange (prolonged sequence of verbal and/or physical interaction containing two or more elicitations). The five categories were intended as an hierarchical ordering of social involvement, but do not imply that greater social involvement is always preferable. Roper and Hinde (1978), and Smith (1978) have pointed out that a child engaged in solitary play is not necessarily lacking in social ability. Each of the 10-minute protocols was coded in 30-second segments, resulting in 20 codings per protocol. When a child was engaged in more than one category of social interaction during a 30-second segment, the category which predominated was scored. When equal time was spent in two categories, the higher category was credited. Interjudge reliability was established between the researcher who made the observations and the initial codings, and a graduate student on 10% of the protocols which were randomly selected. An overall reliability of 89% agreement was obtained; with 93% agreement for Solitary, 92% for Watches, 93% for Parallel Play, 70% for Interactions, and 89% for Interchanges.

Action codes. The action codes developed by Sylva et al. (1980) were utilized to classify the activities of the children with a few

modifications necessitated by the younger age of the children in the present study. Despite these modifications, it was found that the action codes were not suitable for use with the infants. Hence, an examination of the play activities was made for 40 subjects, those in the age range from 12-36 months. The action codes were grouped into four conceptually related clusters for analysis: Watches (the same as for the social codes), Housekeeping Routines (Non-Playful interaction, Carried, Distress, Aggressive Behavior, Individual Physical Needs, Purposeful Movement, and Group Routines), Unproductive Time (Cruising, Waiting, Aimless, and Passive), and Content Areas. In the Content Areas, all musical activities in the Japanese centers were coded under the Adult-led Group Activity category rather than a separate music category since music was usually prescribed movement to a record. Other modifications in the Content Areas were the addition of a Labeling category, and the deletion of the categories Large Construction, Music, Three R's, Problem Solving, Adult Directed Skills, and Organized Games since no observations were made in these areas for the Japanese toddlers. A complete listing of all the activities in the Content Area is presented in Table 4 below. The action codes were applied to the protocols in the same 30-second time blocks used for the social codes with the predominant action for that time period being credited. Ten percent of the 80 protocols were randomly selected to determine interjudge reliability. A second research assistant was utilized to establish reliability with the investigator for the action codes,

concentration, and complexity. An overall reliability of 79.38% agreement was obtained for the action codes, with 86% for Content Areas, 74% for Housekeeping Routines, and 74% for Unproductive Time.

Concentration. Procedures developed in the Oxfordshire study to determine the length of each play bout were followed to permit comparisons to be drawn. The length of play bouts served as an indicator of the concentration or attention span of the child. Coding required stringing together related activities, including preparation and discussion time which were pertinent to the theme of the play bout. For example, a 14 month old boy initiated a play bout by walking to where small blocks were available. A caregiver nearby engaged him in play with the blocks, allowed him to play with them alone for a few minutes, and then rejoined him. The play bout ended when the child left the area to play with other materials. Engagement in an activity, in this case block play, defined the length of the play bout. As mentioned above, complete bouts were observed even if they extended beyond 10 minutes. Some children were engaged in several play bouts during the 10 minute observations, moving from activity to activity after only a brief time spent on each. Perfect agreement was obtained between the research assistant and investigator for the length of play bouts on 9 out of 13 protocols. For the remaining 4 protocols, only minor differences existed such as one coder beginning or ending a play bout one coding (30 seconds) earlier or later.

Complexity. The Sylva et al. (1980) criteria were used to determine complexity of play. Briefly, complex play differed from

ordinary play in the following ways: (1) novel or creative rather than familiar or routine, (2) cognitively complex rather than cognitively unsophisticated, (3) performed in a systematic purposeful manner rather than in an unsystematic random manner, (4) structured and goal-directed rather than aimless and without structure, (5) conducted with care and mental effort rather than with ease and with little mental effort, and (6) learning a new skill or trying to improve one rather than repeating familiar well-established patterns. Utilizing these criteria, each play bout was rated as either complex or ordinary play. A reliability coefficient of 93.75% agreement was obtained on the codings of play complexity.

Findings

Social Patterns

To determine the patterns of social interaction among the Japanese day care children, frequencies and percentages for each of the five categories of social interaction were calculated across the age groups (see Table 1). Raw scores were first subjected to a log transformation to adjust for skewness in frequency data and to compensate for the ipsative nature of the data. A MANOVA was computed for the five categories of the social code by two levels of sex and five levels of age yielding a significant F value for age ($F=2.9$, $p=<.0001$). Univariate F-tests yielded significant values for Watches ($F=5.18$; $df=4,40$; $p=<.002$) and Parallel Play ($F=12.45$; $df=4,40$; $p=<.000001$). The Tukey test was utilized for comparisons among the means. In the Watches category, the youngest 6-12 months group had

significantly higher scores than those in the 24-30 and 30-36 months groups. In the Parallel Play category, the 6-12 months old group was significantly lower than all other age groups.

Insert Table 1 about here

Exploration of the relative impact of adult initiation and child initiation on Parallel Play and exchanges was made through the computation of Pearson correlation coefficients. All reported correlations were significant at the .001 level unless otherwise indicated. Child initiation and Parallel Play yielded r=.50 in situations where only children were present. When an adult was also present, child initiation and Parallel Play was r=.46, while adult initiation and Parallel Play was r=.49. Among the exchanges, significant correlations were r=.76 for child initiation and Interactions, and r=.42 (p=.002) for adult initiation and Interchanges. A correlation of r=-.51 for adult initiated Interchanges and age was also found.

Developmental considerations help explain some of the social patterns which emerged. The finding that the infants from 6-12 months old spent significantly more time than toddlers from 24-36 months watching people and events is related to the fact that, though all were able to crawl and hence had a certain degree of mobility, most of the infants were not yet ambulatory but were visually responsive to their environment. Likewise, the finding that children from 12-36

Table 1

Frequency and Percentage of Time Spent in each Social Interaction Category by Age

(Coded in 30-second segments)

Ages	Solitary		Watches		Parallel Play		Interactions		Interchanges	
(Mos.)	N	%	N	%	N	%	N	%	N	%
6-12	107	26.75	96	24.00	15	3.75	59	14.75	123	30.75
12-18	93	23.25	60	15.00	73	18.25	66	16.50	108	27.00
18-24	83	20.75	40	10.00	90	22.50	76	19.00	111	27.75
24-30	83	20.75	38	9.50	88	22.00	47	11.75	144	36.00
30-36	66	16.50	21	5.25	128	32.00	54	13.50	131	32.75

months were found to spend significantly more time engaged in parallel play than infants under age one can be explained in part by development. Still, environment and culture also undoubtedly influenced the findings. The significant correlations found for both child and adult initiated parallel play suggest that they shared equally in shaping these situations. Illustrative of circumstances when adult influences may be strong were the Japanese practice of frequently providing most of the children with similar play materials at the same time and encouraging group rhythmic movement and exercises. Such practices provided children with common experiences which may help promote a sense of group membership. Child choice and preferences cannot, however, be minimized. The significant correlations between child initiation by Interactions and adult initiation by Interchanges indicate that child initiations result in briefer exchanges while adult initiations result in more extended exchanges. As might be expected, adults initiated more Interchanges with younger children than older children.

To compare the Japanese data on social patterns with data from the West, tabulated in Table 2 are percentages from Parten (1932), Smith (1978), Harper and Huie (1985), and Rubin, Maioni, and Hornung (1976). Only the Parten study provided comparable age groups. Smith's

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Insert Table 2 about here

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children ranged in age from 28 to 47 months upon entry into the playgroup, Harper and Huie's 3-year-old subjects ranged in age from

Table 2

Percentages of Time Spent in Social Interaction Categories for Subjects in the Parten; Smith; Harper & Huie; Rubin, Maioni, & Hornung; and Present Studies

	24-30 mos.		30-36 mos.		3-Year-Olds		
	Japan	Parten	Japan	Parten	Smith	H & H	Rubin
Solitary	30.25	30.41	21.75	37.09	37.00	32.90	32.16
Parallel	22.00	46.25	32.00	37.50	25.00	48.20	29.07
Exchanges	47.75	23.33	46.25	25.41	37.50	19.00	38.77

33 to 44 months, and the average age of Rubin's middle class children was 3.87 years (SD=0.34 years).

An ample proportion of time was spent by the Japanese children in some form of exchange. Percentages across age ranged from 43.5% to 47.75%, reflecting little variability. The data from the West indicated smaller proportions of time spent in exchanges though there was considerable variability among studies with proportions ranging from 19.0 to 38.77%. The percentage of time spent by the Japanese children in exchanges was approximately double that reported by Parten and by Harper and Huie, and considerably higher than that reported by Smith and by Rubin, Maioni, and Hornung. If these exchanges contribute to harmonious group relationships as suggested above, it appears that Japanese children have more opportunities to engage in such social behavior than the Western cohorts examined. Caregiver influence, particularly with the younger children and in extended Interchanges, also needs to be recognized as promoting "the happiness of playing together."

Activity Patterns

To determine how total time was utilized across the Japanese age groups in each of the four clusters of the action codes, frequencies and percentages were calculated (see Table 3). A MANOVA

Insert Table 3 about here

Table 3

Frequencies and Percentages of Time Spent in Major Activity Categories in Japan & Oxfordshire

(Coded in 30-second segments)

Category	Japan (Mos.)								Britain (Yrs.)
	12-18		18-24		24-30		30-36		3 1/2-5 1/2
	N	%	N	%	N	%	N	%	%
Content Areas	265	66.25	244	61.00	236	59.00	280	70.00	68.70
Watching	51	12.75	35	8.75	31	7.75	18	4.50	9.40
Housekeeping	43	10.75	65	16.25	82	20.50	78	19.50	17.20
Unproductive	41	10.25	56	14.00	51	12.75	24	6.00	4.40

Note. The slight discrepancies between figures in the Content Areas and those in Table 4 are due to rounding errors.

was computed for the four clusters of the action codes by two levels of sex and four levels of age using log transformed scores. The analysis yielded no significant differences.

Pearson correlations were computed to examine the relationships among the five categories of the social codes, the four clusters of the action codes, individual action codes, and child and adult initiation. Significant correlations included Interchange and Housekeeping (r=.42, p=.006), Solitary and.Unproductive (r=.43, p=.006),and Content and child initiation (r=.52, p=.001). While up to a fifth of total time was spent by the Japanese children in Housekeeping Routines, the moderate correlation with Interchange suggests that time spent in such routines was not merely "empty" time, but opportunities for extended exchanges with other children and adults. In contrast, the relationship between Solitary and Unproductive suggests that time is not always well used when the child is alone. Sylva et al. also reported that for their sample Aimless and Cruising were prevalent when the child was alone. The significant correlation between Content and child initiation is understandable given that many of the observations were made during free play periods when the child was able to make choices among activities.

Also tabulated in Table 3 are comparative data reported by Sylva et al. (1980) from Oxfordshire. An examination of the table reveals that both samples spent approximately 2/3 of the time engaged in the Content Areas. To further explore the relationship of time

spent in the Content Areas between the two samples, a Spearman rank-order correlation coefficient of r_s=.80, p=<.01 was calculated between the 12 activities held in common by both the 30 to 36 months old Japanese toddlers and Sylva's preschoolers (see Table 4). Data regarding Content Areas presented in Table 4 suggest a rough developmental pattern from 12 months through the preschool years represented by the Oxfordshire sample. A substantial proportion of time was spent by the younger children in Manipulation, reflecting its importance as a mode of exploring the environment (e.g., Largo & Howard, 1979). The noticeable drop in this activity from 24 months on reflects the fact that other modes of exploration are available to older children. With developing language skills and social competence, interactions such as found in Pretend play are possible (e.g., Fein, 1981). Generally, the older children were involved in a greater range of activities with no one activity predominating. The

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Insert Table 4 about here

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consistencies of time use in the Content Areas in Japan and Britain despite cultural and age differences, and differences in practice is notable. Classrooms observed in Oxfordshire as reported by Sylva et al. (1980) reflected an early childhood approach where choices were available to the children through ready access to materials. In Japan, though there was usually a generous free play period in the morning when children were able to make their own selections, fewer choices were available at any given time.

Table 4

Percentage of Time Spent in Various Content Areas in Japan and Britain

Action codes	Japan (Mos.)				Britain (Yrs.)
	12-18	18-24	24-30	30-36	3 1/2-5 1/2
Examination	6.0	6.3	4.8	2.0	1.5
Manipulation	29.5	21.3	6.3	11.5	12.0
Struct. Mat.	1.5	1.5	.3	3.8	4.5
Scale-Ver. Toy	1.5	.5	5.5	5.5	2.3
Sm. Construct.	6.5	1.0	6.3	6.8	4.3
Gross Motor	7.8	14.3	5.8	6.8	9.8
Informal Game	4.0	5.5	9.5	1.5	3.1
Social Play	6.8	1.5	.5	1.5	.8
Rough & Tumble	.3	-	.8	2.3	1.3
Pretend	-	3.0	7.0	8.5	10.4
Art	-	2.8	3.3	5.3	8.3
Adult-led Grp.	1.0	.3	8.0	11.0	7.7
Labeling	1.5	3.3	1.3	3.8	-
Misc. Content	-	-	-	-	2.7
TOTAL %	66.4	61.3	59.4	70.3	68.7

Note. Miscellaneous Content consists of: Large Construction .9%, Music .3%, Three R's .6%, Problem Solving .2%, Adult-Directed Skills .6%, and Organized Game .1%.

Concentration

As an indicator of concentration or the attention span of the children, length of each play bout was determined. Tabulated in Table 5 is the time range of play bouts per quartile by age. The percentage of content oriented bouts per quartile has also been tabulated. One can see that the general trend is that with each successive higher quartile a larger proportion of the play bouts are content oriented. With the exception of the youngest age group, all play bouts in the 4th quartile are content oriented. A correlation of $r=.52$ ($p=.001$) between child initiation and concentration was also found, indicating that those activities which the child initiated tended to engage them for longer periods of time.

Insert Table 5 about here

To provide a basis for comparing the Japanese data with the British data, average length of play bout for each of the action codes was computed for the 30 to 36 months group. These data are necessarily only suggestive given the limited number of play bouts. Excellent concentration was defined in the Oxfordshire study as those bouts which lasted an average of five minutes or more. Four activities in Oxfordshire and five activities in Japan met this criterion. Three activities were held in common in both samples, namely, Art, Small Construction, and Adult-led Group Activity. For the Japanese data activities involving Structured Materials and

Table 5

Percentage of Content Oriented Play Bouts for Each Quartile of Play Bout Duration by Age

Age & Quartile	Time range (min.)		% Content
12-18 months			
Q1	.25	1.25	53%
Q2	1.25	2.50	73%
Q3	2.50	5.00	73%
Q4	5.00	14.37	93%
18-24 months			
Q1	.25	1.50	50%
Q2	1.50	2.50	81%
Q3	2.50	3.53	75%
Q4	3.53	12.13	100%
24-30 months			
Q1	.50	2.25	33%
Q2	2.25	4.00	42%
Q3	4.00	7.29	91%
Q4	7.29	30.00	100%
30-36 months			
Q1	.75	1.50	55%
Q2	1.50	3.28	82%
Q3	3.28	7.75	83%
Q4	7.75	36.50	100%

Scale-Version Toys also averaged more than five minutes in length. The fourth activity meeting the criterion in Oxfordshire was Pretend which averaged exactly five minutes. This activity lasted an average of 4.8 minutes for the Japanese sample. Smith and Connolly (1980) likewise reported that an average baseline of from 3.4 to 4.4 minutes was spent in fantasy play by their subjects who ranged in age from 28 to 56 months. Finally, one can see from Table 5 that at least a quarter of the play bouts in three of the four age groups for the Japanese sample were longer than five minutes in length. Given the younger age of the Japanese children as compared to those in the Sylva et al., and Smith and Connolly studies, the data above appear to support reported observations (e.g., Lanham 1966; Shigaki 1983) that Japanese children have good attention spans.

Complexity of Play

Out of a total of 216 play bouts only 17 could be classified as complex rather than ordinary, using the Oxfordshire criteria. These complex play bouts have been tabulated by age and activity in Table 6. A far smaller proportion of complex play was observed for the Japanese children than was reported by Sylva et al. (1980). Only 7.87% of the Japanese data could be so classified. In contrast, Sylva's findings in four yield categories were as follows: (1) the lowest yield with 2% of play bouts classified as complex was Social Play or "horsing around"; (2) low yield with 22 to 32% complex included Gross Motor and Informal Game; (3) moderate yield with 47 to 50% complex included Manipulation, Scale Version Toys, and Pretend;

and (4) high yield with 69 to 100% complex included Structured Materials, Small Construction, and the Three Rs which by definition was considered challenging. It should be noted that no instances of the Three Rs was observed in the Japanese settings.

Insert Table 6 about here

Possible reasons for the large discrepancy between the Japanese and British data regarding proportion of complex play bouts include: (1) The criteria for complexity may be biased in favor of older children since some high complexity categories are not observed with younger children. (2) While toddlers were observed to be capable of complex play, the proportion of such play in naturalistic settings may be lower than for preschoolers. (3) The data from Oxfordshire were gathered primarily in half-day programs where a higher degree of task orientation is common; whereas, all the Japanese data were gathered in full-day settings where the pace must necessarily vary in consideration of the long day. (4) The concern for socialization in Japanese day care may result in less emphasis placed on cognitive development, contributing to the low proportion of complex play bouts observed. It is this researcher's judgment after extensive observations of Japanese day care that the fourth reason is the most compelling. White (1987) also reports that in a recent survey in Japan even private kindergartens, generally thought to provide an accelerated academic program, do little to promote cognitive

Table 6

Length (in minutes) and Interaction Patterns of Complex Play Bouts

Action Code	Age (in months)				Total
	12-18	18-24	24-30	30-36	
Manipula-	-	*7.5 A-IC	-	*4.3 A-IC	3
tion	-	-	-	20.0 C-IC	
Structured	3.0 A-P	*4.5 C-IC	-	*7.7 C-P	4
Materials	3.5 C-IC	-	-	-	
Small	*12.4 C-P	4.0 C-S	7.6 C-P	*11.8 C-P	5
Contruct.	14.4 A-IC	-	-	-	
Gross Motor	-	2.3 C-P	-	-	1
Pretend	-	-	-	4.8 C-IC	2
	-	-	-	12.0 C-IC	
Labeling	-	-	16.0 A-IC	8.5 C-IC	2
TOTAL	4	4	2	7	17

Note. Astericks indicate those play bouts where similar materials were available for most of the children. Letters indicate whether the bout was child (C) or adult (A) initiated; and interaction pattern, i.e., solitary (S), parallel play (P), or interchange (IC).

development. While concentration may be a prerequisite for good achievement, it appears that at least in the first three years of life there is little emphasis on academics in Japanese day care.

The data above are suggestive of ways that Japanese caregivers promote values of Japanese society. While the significant findings regarding the patterns of social interaction by age are influenced by development, a closer examination also reflects caregiver influence. Almost half of the time of all the Japanese children was spent in an exchange with another person, a considerably greater proportion of time than was spent by comparative cohorts from the West. Caregiver initiation was found to be moderately related to Interchanges, the more extended form of an exchange. Caregiver influence was even significantly present in Parallel Play situations. It appears that the Japanese caregiver acts in a manner which incorporates the child in shared or group experiences consistent with the characterization of Japan as the "human-relations society".

Developmental factors also seem to strongly influence the nature of activities in which Japanese and British children are engaged, despite differences in the presentation of materials. The concentration or attention span of Japanese children, on the other hand, appeared to be at least comparable to that of the older British children and may reflect Japanese valuing of this attribute. Though Japanese caregivers have been described as socializing children to the group, they have also been characterized as placing less emphasis on the cognitive, at least during the preschool years. The relatively

few cognitively complex play bouts observed in Japanese day care situations seem to support this view.

The present study has been primarily heuristic in nature. Needed now is further empirical confirmation of the influence of cultural values on early childhood practices through studies designed to examine directly cultural practices and their impact on the child.

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